



# How to audio decoder

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## INTRODUCTION

DVD players and VCD players decoders fault coverage determination method is the same, are based on sound principles as a basis to judge interlock FIG. This is because when the sound decoder chip decoder stops decoding video will immediately stop; on the contrary, the video decoding failure, the sound will stop output. This phenomenon is used to determine the fault position is very useful, sound, as long as the drawings in a kind of output, it shows two decoders (ie, the video decoder and the audio decoder) are working properly, that extract a part of a good, the only problem in the decompressed audio or video processing circuitry, this case you should check the audio DAC circuitry, audio amplifier output circuit, or a video encoder.

1. When it can only play audio, no video, it is extracting fault that circuit is caused.
2. The acoustic, FIG interlocking principle, it is easy to determine the approximate range above failure.
3. Image and sound no fault, the fault lies in extracting section.
4. An image, no sound fault: This condition indicates decompression chip and its peripheral memory, video encoder were normal, the fault occurs only in audio DAC and audio amplifier output circuit.
5. Sound, no image failure: This condition indicates decompression chip and its peripheral memory, audio DAC and audio amplifier output circuit were normal, the fault occurs only video encoder or the video output circuit.
6. Sound and images, but no color faults: This phenomenon indicates decompression, and audio and video signal processing circuit is normal.

CM1716 and PCM1728 can be said to be cheaper than the highest quality DAC chip, with the best digital filter (see Table 1), but the price is not expensive, so popular manufacturers favor. Both specifications similar, just some general PCM1728 canceled less than the setting function. As for the PCM1720, PCM1723, PCM1727 is a low-cost chip, their digital filtering characteristic only 35 dB, generally only suitable for use in the sound quality is not demanding DVD-ROM, DVD players, car stereo.

Here are a more well-known digital filter manufacturers - Nippon Precision Circuits Corporation NPC (Nippon Precision Circuit), before the NPC's most common digital filter comes SM5813, their digital filtering up to 110dB, 20bit quantization, many modulus converter at the time of using a combination SM5813 + PCM63PK. Today NPC companies with popular 96kHz / 24bit specification, introduced SM5846, SM5847 two digital filters, it is the best partner of PCM1704. SM5846 digital filter attenuation of 104dB or more, but only harmonic passband  $\pm 0.000\ 01\text{dB}$ , compared to Table 1 DAC chip built-in digital filter specifications of a lot stronger, and therefore should be a good match with the PCM1704.

The company also introduced a NPC SM5844 chip dedicated to asynchronous sampling frequency of work, such as the 44.1 kHz signal can be up to 96kHz, let the back-end DAC chip analytical ability to play 96kHz / 24bit for. But it can only 2

To reassemble your device, follow these instructions in reverse order.

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